

What is claimed is:

1. A semiconductor structure, comprising:
 - 5 a memory element comprising a floating gate;
a control electrode, which is capacitively coupled to the floating gate, wherein a signal for controlling the memory element is applicable to the control electrode; and
10 a shield, which is arranged isolated from the floating gate and covers it for the most part.
- 15 2. The semiconductor structure according to claim 1, which comprises a substrate and a portion formed thereon, where the memory element and the control electrode are arranged, wherein the shield is arranged above the floating gate.
- 20 3. The semiconductor structure according to claim 2, wherein the memory element is formed at least partly in the substrate or in a well in the substrate, wherein a potential is applicable to the substrate and/or to the well.
- 25 4. The semiconductor structure according to claim 3, wherein the shield is coupled to the substrate or to the well.
- 30 5. The semiconductor structure according to claim 3, wherein a potential is applicable to shield, which is applicable to the well and the substrate, wherein the potential is substantially the lowest supply voltage potential which is supplied to the semiconductor structure.
- 35 6. The semiconductor structure according to claim 1, wherein the floating gate comprises a plurality of

conductive portions, wherein the shield extends above the plurality of conductive portions of the floating gate.

7. The semiconductor structure according to claim 3,
5 wherein the substrate and/or the well shields the floating gate.

8. The semiconductor structure according to claim 1,
10 which comprises a supply structure with a plurality of levels, which are arranged above the first portion.

9. The semiconductor structure according to claim 8,
wherein

15 for the case that the distance of the control electrode to the surface of the substrate is smaller than the distance of the floating gate to the surface of the substrate, the shield is formed by a supply level, whose distance to the floating gate is lowest, and.

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for the case that the distance of the floating gate to the surface of the first substrate is lower than the distance of the control electrode to the surface of the substrate, the shield is formed by a supply level, whose distance to
25 the floating gate is highest.

10. The semiconductor structure according to claim 1,
wherein the shield is coupled to the control electrode.

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